B2 5. (Amended) A transformed plant cell comprising the isolated DNA of claim 1.

6. (Amended) A transgenic plant comprising the transformed plant cell of claim 5.

B3 7. (Amended) A transgenic plant which is an offspring or a clone of the transgenic plant of claim 6, wherein plant cells from said offspring or clone also contain the isolated DNA which encodes a protein having neoxanthin cleavage activity and said protein is selected from the group consisting of:

(a) a protein comprising the amino acid sequence of SEQ ID NO:6;

(b) a protein encoded by a gene that hybridizes under stringent conditions with the nucleotide sequence of SEQ ID NO:5, wherein said stringent conditions are: (i) hybridization in a solution containing 30% formamide, 6X SSC, 5X Denhardt's solution, and 100 µg/ml denatured salmon sperm DNA at 37°C and (ii) washing in 1X SSC and 1% SDS at room temperature for 15 min;

(c) a protein comprising the amino acid sequence of SEQ ID NO:6 having up to ten conservative amino acid substitutions; and

(d) a protein comprising an amino acid sequence that is at least 80% identical to the sequence set forth in SEQ ID NO:6.

B4 8. (Amended) The transgenic plant of claim 6, wherein the expression level of the isolated DNA encoding a protein having neoxanthin cleavage activity is increased or decreased compared to the expression level in the wild type of said transgenic plant.

9. (Amended) The transgenic plant of claim 6, wherein the amount of abscisic acid is increased or decreased compared to the wild type of said transgenic plant.

10. (Amended) The transgenic plant of claim 6, wherein stress tolerance is increased or decreased compared to the wild type of said transgenic plant.

13. (Amended) A method for producing the transgenic plant comprising the isolated DNA of claim 1, comprising the steps of introducing said isolated DNA into a plant cell and regenerating a plant from the plant cell.

14. (Amended) A method for increasing or decreasing stress tolerance in a plant, wherein said method comprises:

(a) introducing an isolated DNA encoding a protein having neoxanthin cleavage activity into a plant cell obtained from said plant;

(b) expressing the isolated DNA in said plant cell; and

(c) producing a plant from the plant cell that has decreased or increased stress tolerance.

Kindly cancel claims 2-4 without prejudice or disclaimer.

Kindly add the following new claims.

15. (New) The isolated DNA of claim 1, wherein said isolated DNA encodes a protein that is at least 90% identical to the sequence set forth in SEQ ID NO:6.

16. (New) The isolated DNA of claim 1, wherein said isolated DNA encodes a protein that is at least 95% identical to the sequence set forth in SEQ ID NO:6.

17. (New) The isolated DNA of claim 1, wherein said isolated DNA encodes a protein that is at least 99% identical to the sequence set forth in SEQ ID NO:6.

18. (New) The isolated DNA of claim 1, wherein said isolated DNA encodes a protein that is identical to the sequence set forth in SEQ ID NO:6.

19. (New) The method according to claim 14, wherein the isolated DNA encodes a protein having neoxanthin cleavage activity and said protein is selected from the group consisting of:

(a) a protein comprising the amino acid sequence of SEQ ID NO:6;

(b) a protein encoded by a gene that hybridizes under stringent conditions with the nucleotide sequence of SEQ ID NO:5, wherein said stringent conditions are: (i) hybridization in a solution containing 30% formamide, 6X SSC, 5X Denhardt's solution, and 100 µg/ml denatured salmon sperm DNA at 37°C and (ii) washing in 1X SSC and 1% SDS at room temperature for 15 min;

(c) a protein comprising the amino acid sequence of SEQ ID NO:6 having up to ten conservative amino acid substitutions; and

(d) a protein comprising an amino acid sequence that is at least 80% identical to the sequence set forth in SEQ ID NO:6.

20. (New) The method according to claim 19, wherein said stress is drought stress.

21. (New) The method according to claim 14, wherein said stress is an environmental stress.

22. (New) The method according to claim 21, wherein said environmental stress is drought stress, salt stress, or low temperature stress.